

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

APPLICANT(s): Lainema et al CONF.NO.: 5610

SERIAL NO.: 10/762,736 ART UNIT: 2612

FILING DATE: January 21, 2004 EXAMINER: Allen C. Wong

TITLE: METHOD FOR ENCODING AND DECODING VIDEO
 INFORMATION, A MOTION COMPENSATED VIDEO ENCODER
 AND A CORRESPONDING DECODER

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APPELLANTS REPLY
(37 C.F.R. §1.192)

The following is in reply to the Examiner's Answer mailed August 2, 2010.

Responsive Remarks

Quantization is a mathematical process by which a variable sequence of values may be simplified into a series of discrete levels. It may be applied to the elements of video image data to reduce the image data to a more manageable volume. The application of the quantization process is at issue in this Appeal.

The Examiner places strong reliance on the disclosure of Nieweglowski in the following language, from paragraph 10, in the Response to Arguments of the Answer, beginning at page 16:

"Thus, Nieweglowski's discloses determining, via a decoder, a prediction error quantizer from encoded video information, wherein the prediction error quantizer is used to quantize prediction error transform coefficients."

Applicant has asserted throughout the prosecution of this application that this conclusion is without support in the teaching of Nieweglowski. As acknowledged by the Examiner, Nieweglowski fails to mention quantization in any manner. In response to this, the Examiner avers: **"the use of quantizers is considered an inherent feature, if not, then an extremely obvious feature"** and cites the teaching of Yagasaki stating:

"Thus, Yagasaki discloses the use of quantization for obtaining quantization parameter data in MPEG encoding/decoding systems"

Although the Examiner refers to Figure 5 of Yagasaki, quantization is discussed more particularly with respect to figures 4a and 4b, in column 7, lines 36-48, stated below for the convenience of the Board:

"The coefficient S3 is provided to a quantizer 15, for quantizing on the basis of a quantizing step signal S18 provided by a buffer memory 27(FIG. 4B). The quantizer 15 outputs the resulting block quantized DCT coefficient signal S4. The quantizing step signal S18 is generated by the buffer memory 27 on the basis of the amount of information present in the coefficient data stored and managed by the buffer memory 27. When the amount of information present in the coefficient data increases so as to exceed a predetermined data transmission bit rate, the quantizing step S18 is adjusted to provide coarse quantization in order to decrease the quantity of information to be output.

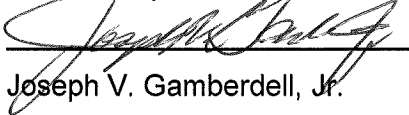
Applicant submits that the issue is not whether quantization in general is inherent in coding/decoding image data, but the issue is more particularly, is quantization applied to prediction error data according to the claims of this application, inherent. Applicant asserts that there is nothing in the cited references, either alone or in combination, that teaches the coding method based on prediction error quantization, as described in the independent claims under consideration.

Applicant further asserts that the Examiner has merely combined the words "prediction error" from Nieweglowski with the word "quantizer" from Yagasaki with out consideration of the context of these words in the associated teachings. There is nothing in either reference that would encourage an individual skilled in the art to make such a combination. Nevertheless, the resulting combination would fail to disclose the subject matter described in the claims of this application.

The Examiner further asserts: **"Thus, Yagasaki discloses determining the accuracy of the motion coefficients."** Although accuracy of motion coefficients is a factor in the coding system of Yagasaki, the Examiner ignores the words of the independent claims, "based on the prediction error quantizer". As indicated in the abstract of Yagasaki, a reference table is established based on motion vector value ranges and degrees of accuracy. Again the Examiner has chosen to ignore the context of the teaching.

It is respectfully submitted that all of the claims, as presented, are clearly novel and patentable over the prior art of record. Accordingly, the Board of Appeals is respectfully requested to favorably consider the rejected claims and to reverse the final rejections, thereby enabling this application to issue as a U.S. Letters Patent.

Respectfully submitted,


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1 October 2010
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